

Sequence Listing

<110> Baker, Kevin
Botstein, David
Eaton, Dan
Ferrara, Napoleone
Filvaroff, Ellen
Gerritsen, Mary
Goddard, Audrey
Godowski, Paul
Grimaldi, Christopher
Gurney, Austin
Hillan, Kenneth
Kljavin, Ivar
Napier, Mary
Roy, Margaret
Tumas, Daniel
Wood, William

<120> SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC ACIDS ENCODING THE SAME

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<213> Homo Sapien

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35 40 45
Asp Asp Asp Asp Asp Glu Asp Asn Ser Leu Phe Pro Thr Arg Glu
50 55 60
Pro Arg Ser His Phe Phe Pro Phe Asp Leu Phe Pro Met Cys Pro
65 70 75
Phe Gly Cys Gln Cys Tyr Ser Arg Val Val His Cys Ser Asp Leu
80 85 90
Gly Leu Thr Ser Val Pro Thr Asn Ile Pro Phe Asp Thr Arg Met
95 100 105
Leu Asp Leu Gln Asn Asn Lys Ile Lys Glu Ile Lys Glu Asn Asp
110 115 120
Phe Lys Gly Leu Thr Ser Leu Tyr Gly Leu Ile Leu Asn Asn Asn
125 130 135
Lys Leu Thr Lys Ile His Pro Lys Ala Phe Leu Thr Thr Lys Lys
140 145 150
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155 160 165
Leu Asn Leu Pro Lys Ser Leu Ala Glu Leu Arg Ile His Glu Asn
170 175 180
Lys Val Lys Lys Ile Gln Lys Asp Thr Phe Lys Gly Met Asn Ala
185 190 195
Leu His Val Leu Glu Met Ser Ala Asn Pro Leu Asp Asn Asn Gly
200 205 210

Ile Glu Pro Gly Ala Phe Glu Gly Val Thr Val Phe His Ile Arg
215 220 225
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230 235 240
Thr Leu Leu Glu Leu His Leu Asp Tyr Asn Lys Ile Ser Thr Val
245 250 255
Glu Leu Glu Asp Phe Lys Arg Tyr Lys Glu Leu Gln Arg Leu Gly
260 265 270
Leu Gly Asn Asn Lys Ile Thr Asp Ile Glu Asn Gly Ser Leu Ala
275 280 285
Asn Ile Pro Arg Val Arg Glu Ile His Leu Glu Asn Asn Lys Leu
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Lys Lys Ile Pro Ser Gly Leu Pro Glu Leu Lys Tyr Leu Gln Ile
305 310 315
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Phe Cys Pro Thr Val Pro Lys Met Lys Lys Ser Leu Tyr Ser Ala
335 340 345
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<223> Synthetic Oligonucleotide Probe

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35 40 45
Arg Gly Ala Ala Gly Cys Thr Phe Gly Gly Lys Val Tyr Ala Leu
50 55 60
Asp Glu Thr Trp His Pro Asp Leu Gly Gln Pro Phe Gly Val Met
65 70 75

Arg Cys Val Leu Cys Ala Cys Glu Ala Pro Gln Trp Gly Arg Arg
80 85 90

Thr Arg Gly Pro Gly Arg Val Ser Cys Lys Asn Ile Lys Pro Glu
95 100 105

Cys Pro Thr Pro Ala Cys Gly Gln Pro Arg Gln Leu Pro Gly His
110 115 120

Cys Cys Gln Thr Cys Pro Gln Glu Arg Ser Ser Ser Glu Arg Gln
125 130 135

Pro Ser Gly Leu Ser Phe Glu Tyr Pro Arg Asp Pro Glu His Arg
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Ser Tyr Ser Asp Arg Gly Glu Pro Gly Ala Glu Glu Arg Ala Arg
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Gly Asp Gly His Thr Asp Phe Val Ala Leu Leu Thr Gly Pro Arg
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Ser Gln Ala Val Ala Arg Ala Arg Val Ser Leu Leu Arg Ser Ser
185 190 195

Leu Arg Phe Ser Ile Ser Tyr Arg Arg Leu Asp Arg Pro Thr Arg
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Ile Arg Phe Ser Asp Ser Asn Gly Ser Val Leu Phe Glu His Pro
215 220 225

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230 235 240

Val Pro Arg Leu Ser Leu Arg Leu Leu Arg Ala Glu Gln Leu His
245 250 255

Val Ala Leu Val Thr Leu Thr His Pro Ser Gly Glu Val Trp Gly
260 265 270

Pro Leu Ile Arg His Arg Ala Leu Ala Ala Glu Thr Phe Ser Ala
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Ile Leu Thr Leu Glu Gly Pro Pro Gln Gln Gly Val Gly Gly Ile
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Thr Leu Leu Thr Leu Ser Asp Thr Glu Asp Ser Leu His Phe Leu
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Leu Leu Phe Arg Gly Leu Leu Glu Pro Arg Ser Gly Gly Leu Thr
320 325 330

Gln Val Pro Leu Arg Leu Gln Ile Leu His Gln Gly Gln Leu Leu
335 340 345

Arg Glu Leu Gln Ala Asn Val Ser Ala Gln Glu Pro Gly Phe Ala
350 355 360

Glu Val Leu Pro Asn Leu Thr Val Gln Glu Met Asp Trp Leu Val

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380	385	390
Leu Arg Ile Ser Gly His Ile Ala Ala Arg Lys Ser Cys Asp Val		
395	400	405
Leu Gln Ser Val Leu Cys Gly Ala Asp Ala Leu Ile Pro Val Gln		
410	415	420
Thr Gly Ala Ala Gly Ser Ala Ser Leu Thr Leu Leu Gly Asn Gly		
425	430	435
Ser Leu Ile Tyr Gln Val Gln Val Val Gly Thr Ser Ser Glu Val		
440	445	450
Val Ala Met Thr Leu Glu Thr Lys Pro Gln Arg Arg Asp Gln Arg		
455	460	465
Thr Val Leu Cys His Met Ala Gly Leu Gln Pro Gly Gly His Thr		
470	475	480
Ala Val Gly Ile Cys Pro Gly Leu Gly Ala Arg Gly Ala His Met		
485	490	495
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Pro Asp Gly Glu Leu Arg Gly His Val Ala Ala Leu Pro Tyr Cys		
515	520	525
Gly His Ser Ala Arg His Asp Thr Leu Pro Val Pro Leu Ala Gly		
530	535	540
Ala Leu Val Leu Pro Pro Val Lys Ser Gln Ala Ala Gly His Ala		
545	550	555
Trp Leu Ser Leu Asp Thr His Cys His Leu His Tyr Glu Val Leu		
560	565	570
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Leu Leu Gly Pro Pro Gly Thr Pro Gly Pro Arg Arg Leu Leu Lys		
590	595	600
Gly Phe Tyr Gly Ser Glu Ala Gln Gly Val Val Lys Asp Leu Glu		
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Pro Glu Leu Leu Arg His Leu Ala Lys Gly Met Ala Ser Leu Met		
620	625	630
Ile Thr Thr Lys Gly Ser Pro Arg Gly Glu Leu Arg Gly Gln Val		
635	640	645
His Ile Ala Asn Gln Cys Glu Val Gly Gly Leu Arg Leu Glu Ala		
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Ser Ala Ala Pro Pro Val Val Pro Gly Leu Pro Ala Leu Ala Pro
680 685 690
Ala Lys Pro Gly Gly Pro Gly Arg Pro Arg Asp Pro Asn Thr Cys
695 700 705
Phe Phe Glu Gly Gln Gln Arg Pro His Gly Ala Arg Trp Ala Pro
710 715 720
Asn Tyr Asp Pro Leu Cys Ser Leu Cys Thr Cys Gln Arg Arg Thr
725 730 735
Val Ile Cys Asp Pro Val Val Cys Pro Pro Pro Ser Cys Pro His
740 745 750
Pro Val Gln Ala Pro Asp Gln Cys Cys Pro Val Cys Pro Glu Lys
755 760 765
Gln Asp Val Arg Asp Leu Pro Gly Leu Pro Arg Ser Arg Asp Pro
770 775 780
Gly Glu Gly Cys Tyr Phe Asp Gly Asp Arg Ser Trp Arg Ala Ala
785 790 795
Gly Thr Arg Trp His Pro Val Val Pro Pro Phe Gly Leu Ile Lys
800 805 810
Cys Ala Val Cys Thr Cys Lys Gly Gly Thr Gly Glu Val His Cys
815 820 825
Glu Lys Val Gln Cys Pro Arg Leu Ala Cys Ala Gln Pro Val Arg
830 835 840
Val Asn Pro Thr Asp Cys Cys Lys Gln Cys Pro Val Gly Ser Gly
845 850 855
Ala His Pro Gln Leu Gly Asp Pro Met Gln Ala Asp Gly Pro Arg
860 865 870
Gly Cys Arg Phe Ala Gly Gln Trp Phe Pro Glu Ser Gln Ser Trp
875 880 885
His Pro Ser Val Pro Pro Phe Gly Glu Met Ser Cys Ile Thr Cys
890 895 900
Arg Cys Gly Ala Gly Val Pro His Cys Glu Arg Asp Asp Cys Ser
905 910 915
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<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide probe

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<213> Artificial Sequence

<220>
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<400> 9
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<210> 10
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<212> DNA
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<400> 12
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<210> 14
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<212> DNA
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cttaactctg gtggtaagg tcagcacctg tgcggccgggg gagagtcacg 1050

caaatgactt ggagtgttca ggaaaaggaa aatgcaccac gaagccgtca 1100
gaggcaactt tttcctgtac ctgtgaggag cagtaacgtgg gtactttctg 1150
tgaagaatac gatgcttgcc agagggaaacc ttgccaaaac aacgcgagct 1200
gtattgatgc aaatgaaaag caagatggga gcaatttcac ctgtgttgc 1250
cttcctgggtt atactggaga gctttgccag tccaagattg attactgcat 1300
cctagaccca tgcagaaaatg gagcaacatg catttccagt ctcagtggat 1350
tcacctgcca gtgtccagaa ggatacttcg gatctgttgc tgaagaaaag 1400
gtggaccctt gcgcctcgtc tcctgtgccag aacaacggca cctgctatgt 1450
ggacggggta cactttacct gcaactgcag cccgggcttc acagggccga 1500
cctgtgccc a ctttattgac ttctgtgccc tcagccctg tgctcatggc 1550
acgtgccgca gcgtggcac cagctacaaa tgcctctgtg atccaggtta 1600
ccatggcctc tactgtgagg aggaatataa tgagtgcctc tccgctccat 1650
gcctgaatgc agccacctgc agggacctcg ttaatggcta tgagtgtgtg 1700
tgcctggcag aatacaaagg aacacactgt gaattgtaca aggatccctg 1750
cgctaacgta agctgtctga acggagccac ctgtgacagc gacggcctga 1800
atggcacgtg catctgtgca cccgggttta caggtgaaga gtgcgacatt 1850
gacataaaatg aatgtgacag taacccctgc caccatggtg ggagctgcct 1900
ggaccagccc aatggttata actgccactg cccgcattgt tgggtggag 1950
caaactgtga gatccaccc caatggaagt ccgggcacat ggccggagac 2000
ctcaccaaca tgccacggca ctccctctac atcatcattg gagccctctg 2050
cgtggccttc atccttatgc tgatcatcct gatcgtgggg atttgcgc 2100
tcagccgcatt tgaataccag gtttcttcca ggccagccta tgaggagttc 2150
tacaactgcc gcagcatcga cagcgagtgc agcaatgccca ttgcattccat 2200
ccggcatgcc aggtttggaa agaaatcccg gcctgcaatg tatgtatgt 2250
gccccatcgc ctatgaagat tacagtccctg atgacaaacc cttggtcaca 2300
ctgattaaaa ctaaagattt gtaatctttttttt tttggattat ttttcaaaaa 2350
gatgagatac tacactcatt taaatattttt taagaaaaata aaaagcttaa 2400
gaaatttaaa atgcttagctg ctcaagagtt ttcagtagaa tatttaagaa 2450
ctaattttct gcagctttta gtttggaaaa aatattttaa aaacaaaaattt 2500

tgtgaaacct atagacgatg ttttaatgta ctttcagctc tctaaactgt 2550
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gtaacgttagc atatgatgta taatagagta taccgattac taaaaaagaa 2750
gtctgaaatg ttctttgtt gaaaaagaaaa ctat taaaat ttactattcc 2800
taacccgaat gaaattagcc tttgccttat tctgtgcattt ggttaagtaac 2850
ttat tctgc actgtttgt tgaactttgtt gaaaaacattc ttgcagttt 2900
gttttgc tttcgtaac agtcgtcgaa ctaggcctca aaaacatacg 2950
taacgaaaag gccttagcgag gcaaattctg attgatttga atctatattt 3000
ttctttaaaa agtcaagggt tctatattgtt gagtaaatta aatttacatt 3050
tgagttgtt gttgctaaga ggtat taaaat gtaagagagt actggttcct 3100
tcagtagtga gtat tctca tagtgcagct ttat tatactt ccaggatgtt 3150
tttgcgtt tatttgcattt atatgtgc ttctgcattt ttgcataattt 3200
ccaaccat tgaataaaatg tgatcaagtc a 3231

<210> 15
<211> 737
<212> PRT
<213> Homo Sapien

<400> 15
Met Gln Pro Arg Arg Ala Gln Ala Pro Gly Ala Gln Leu Leu Pro
1 5 10 15
Ala Leu Ala Leu Leu Leu Leu Gly Ala Gly Pro Arg Gly
20 25 30
Ser Ser Leu Ala Asn Pro Val Pro Ala Ala Pro Leu Ser Ala Pro
35 40 45
Gly Pro Cys Ala Ala Gln Pro Cys Arg Asn Gly Gly Val Cys Thr
50 55 60
Ser Arg Pro Glu Pro Asp Pro Gln His Pro Ala Pro Ala Gly Glu
65 70 75
Pro Gly Tyr Ser Cys Thr Cys Pro Ala Gly Ile Ser Gly Ala Asn
80 85 90
Cys Gln Leu Val Ala Asp Pro Cys Ala Ser Asn Pro Cys His His
95 100 105
Gly Asn Cys Ser Ser Ser Ser Ser Ser Asp Gly Tyr Leu

110	115	120
Cys Ile Cys Asn Glu Gly Tyr Glu Gly Pro Asn Cys Glu Gln Ala		
125	130	135
Leu Pro Ser Leu Pro Ala Thr Gly Trp Thr Glu Ser Met Ala Pro		
140	145	150
Arg Gln Leu Gln Pro Val Pro Ala Thr Gln Glu Pro Asp Lys Ile		
155	160	165
Leu Pro Arg Ser Gln Ala Thr Val Thr Leu Pro Thr Trp Gln Pro		
170	175	180
Lys Thr Gly Gln Lys Val Val Glu Met Lys Trp Asp Gln Val Glu		
185	190	195
Val Ile Pro Asp Ile Ala Cys Gly Asn Ala Ser Ser Asn Ser Ser		
200	205	210
Ala Gly Gly Arg Leu Val Ser Phe Glu Val Pro Gln Asn Thr Ser		
215	220	225
Val Lys Ile Arg Gln Asp Ala Thr Ala Ser Leu Ile Leu Leu Trp		
230	235	240
Lys Val Thr Ala Thr Gly Phe Gln Gln Cys Ser Leu Ile Asp Gly		
245	250	255
Arg Ser Val Thr Pro Leu Gln Ala Ser Gly Gly Leu Val Leu Leu		
260	265	270
Glu Glu Met Leu Ala Leu Gly Asn Asn His Phe Ile Gly Phe Val		
275	280	285
Asn Asp Ser Val Thr Lys Ser Ile Val Ala Leu Arg Leu Thr Leu		
290	295	300
Val Val Lys Val Ser Thr Cys Val Pro Gly Glu Ser His Ala Asn		
305	310	315
Asp Leu Glu Cys Ser Gly Lys Gly Lys Cys Thr Thr Lys Pro Ser		
320	325	330
Glu Ala Thr Phe Ser Cys Thr Cys Glu Glu Gln Tyr Val Gly Thr		
335	340	345
Phe Cys Glu Glu Tyr Asp Ala Cys Gln Arg Lys Pro Cys Gln Asn		
350	355	360
Asn Ala Ser Cys Ile Asp Ala Asn Glu Lys Gln Asp Gly Ser Asn		
365	370	375
Phe Thr Cys Val Cys Leu Pro Gly Tyr Thr Gly Glu Leu Cys Gln		
380	385	390
Ser Lys Ile Asp Tyr Cys Ile Leu Asp Pro Cys Arg Asn Gly Ala		
395	400	405

Thr Cys Ile Ser Ser Leu Ser Gly Phe Thr Cys Gln Cys Pro Glu
410 415 420

Gly Tyr Phe Gly Ser Ala Cys Glu Glu Lys Val Asp Pro Cys Ala
425 430 435

Ser Ser Pro Cys Gln Asn Asn Gly Thr Cys Tyr Val Asp Gly Val
440 445 450

His Phe Thr Cys Asn Cys Ser Pro Gly Phe Thr Gly Pro Thr Cys
455 460 465

Ala Gln Leu Ile Asp Phe Cys Ala Leu Ser Pro Cys Ala His Gly
470 475 480

Thr Cys Arg Ser Val Gly Thr Ser Tyr Lys Cys Leu Cys Asp Pro
485 490 495

Gly Tyr His Gly Leu Tyr Cys Glu Glu Tyr Asn Glu Cys Leu
500 505 510

Ser Ala Pro Cys Leu Asn Ala Ala Thr Cys Arg Asp Leu Val Asn
515 520 525

Gly Tyr Glu Cys Val Cys Leu Ala Glu Tyr Lys Gly Thr His Cys
530 535 540

Glu Leu Tyr Lys Asp Pro Cys Ala Asn Val Ser Cys Leu Asn Gly
545 550 555

Ala Thr Cys Asp Ser Asp Gly Leu Asn Gly Thr Cys Ile Cys Ala
560 565 570

Pro Gly Phe Thr Gly Glu Glu Cys Asp Ile Asp Ile Asn Glu Cys
575 580 585

Asp Ser Asn Pro Cys His His Gly Gly Ser Cys Leu Asp Gln Pro
590 595 600

Asn Gly Tyr Asn Cys His Cys Pro His Gly Trp Val Gly Ala Asn
605 610 615

Cys Glu Ile His Leu Gln Trp Lys Ser Gly His Met Ala Glu Ser
620 625 630

Leu Thr Asn Met Pro Arg His Ser Leu Tyr Ile Ile Ile Gly Ala
635 640 645

Leu Cys Val Ala Phe Ile Leu Met Leu Ile Ile Leu Ile Val Gly
650 655 660

Ile Cys Arg Ile Ser Arg Ile Glu Tyr Gln Gly Ser Ser Arg Pro
665 670 675

Ala Tyr Glu Glu Phe Tyr Asn Cys Arg Ser Ile Asp Ser Glu Phe
680 685 690

Ser Asn Ala Ile Ala Ser Ile Arg His Ala Arg Phe Gly Lys Lys

695 700 705

Ser Arg Pro Ala Met Tyr Asp Val Ser Pro Ile Ala Tyr Glu Asp
710 715 720

Tyr Ser Pro Asp Asp Lys Pro Leu Val Thr Leu Ile Lys Thr Lys
725 730 735

Asp Leu

<210> 16
<211> 43
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 16
tgtaaaaacga cggccagttt aatagacctg caattattaa tct 43

<210> 17
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 17
cagggaaacag ctatgaccac ctgcacacacct gcaaattccat t 41

<210> 18
<211> 508
<212> DNA
<213> Homo Sapien

<400> 18
ctctggaagg tcacggccac aggattccaa cagtgcctccc tcatacatgg 50

acgaaagtgt gaccccccctt tcagggtttc agggggactg gtccctcctgg 100

aggagatgct cgccttgggg aataatcaact ttattggttt tgtgaatgat 150

tctgtgacta agtctattgt ggctttgcgc ttaactctgg tggtaaggt 200

cagcacctgt gtgccggggg agagtcacgc aaatgacttg gagtgttcag 250

gaaaaggaaa atgcaccacg aagccgtcag aggcaacttt ttccctgtacc 300

tgtgaggagc agtacgtggg tactttctgt gaagaatacg atgcttgcca 350

gaggaaacct tgccaaaaca acgcgagctg tattgatgca aatgaaaagc 400

aagatggagc caatttcacc tgtgtttgcc ttccctggta tactggagag 450

ctttgccaac cgaactgaga ttggagcgaa cgacctacac cgaactgaga 500

tagggag 508

<210> 19
<211> 508
<212> DNA
<213> Homo Sapien

<400> 19
ctctggaagg tcacggccac aggattccaa cagtgcctcc tcatacatgg 50
acgaaaagtgt gaccccccctt tcaggcttcc agggggactg gtcctcctgg 100
aggagatgtc cgccttgggg aataatcaact ttattggttt tgtgaatgat 150
tctgtgacta agtctattgt ggcttgcgcc ttaactctgg tggtaaggt 200
cagcacctgt gtgccggggg agagtcacgc aaatgacttg gagtgttcag 250
gaaaaggaaa atgcaccacg aagccgtcag aggcaacttt ttccctgtacc 300
tgtgaggagc agtacgtggg tactttctgt gaagaatacg atgcttgcca 350
gagggaaacct tgccaaaaca acgcgagctg tattgatgca aatgaaaagc 400
aagatggag caatttcacc tgtgtttgcc ttccctggta tactggagag 450
cttgccaaac cgaactgaga ttggagcgaa cgacctacac cgaactgaga 500

tagggag 508

<210> 20
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 20
ctctggaagg tcacggccac agg 23

<210> 21
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 21
ctcagttcggttggcaaagc tctc 24

<210> 22
<211> 69
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 22

cagtgcctcc tcatagatgg acgaaagtgt gacccccc tt tcaggcgaga 50
gctttgccaa ccgaactga 69

<210> 23

<211> 1520

<212> DNA

<213> Homo Sapien

<400> 23

gctgagtctg ctgctctgc tgctgctgtt ccagcctgtt acctgtgcct 50
acaccacgccc agggcccccc agagccctca ccacgctggg cgccccccaga 100
gccccacacca tgccggcac ctacgctccc tcgaccacac tcagtagtcc 150
cagcacccag ggcctgcaag agcaggcactt ggccctgtat cgggacttcc 200
cgctcgttga cggccacaac gacctgtccc tggtcctaag gcaggtttac 250
cagaaaggcc tacaggatgt taacctgcgc aatttcagct acggccagac 300
cagcctggac aggcttagag atggcctcgat gggcgcccaag ttctggtag 350
cctatgtgcc atgccagacc caggaccggg atgcctgtcg cctcaccctg 400
gagcagattt acctcatacg ccgcattgtt gtcccttatt ctgagcttga 450
gcttgttgc accggctaaag ctctgaacga cactcagaaa ttggccttgc 500
tcatcggtgt agagggtggc cactcgctgg acaatagctt ctccatctta 550
cgtaccttctt acatgctggg agtgcgttac ctgacgctca cccacaccc 600
caacacaccc tgggcagaga gctccgctaa gggcgccac tccttctaca 650
acaacatcag cgggcttactt gactttgggtt agaagggtggt ggcagaaatg 700
aacccgcctgg gcatgtatgtt agacttatcc catgtctcag atgctgtggc 750
acggcgccctt ctggaaagtgtt cacaggcacc tggatcttc tccactcg 800
ctggccgggg tggatgttgc accgtgcgttgc atgttcctgtt tgacatcttg 850
cagcttctgtt agaagaacgg tggcgctgtt atgggtgtttt tggccatggg 900
agtaatacag tgcaaccat cagccatgtt gtccactgtt gcagatcact 950
tcgaccacat caaggctgtt attggatcca agttcatcg gattgggttga 1000
gattatgtt gggccggcaa attcccttagt gggctggaaag acgtgtccac 1050
ataccgggtt ctgatagagg agttgttgc tggatgttgc agtggatggaaag 1100
agcttcagggtt tggatgttgc gaaacctgc tggccgtt cagacaatgtt 1150

gaaaaggtac aggaagaaaa caaatggcaa agccccttgg aggacaagtt 1200
cccgatgag cagctgagca gttcctgcc a ctcgcaccc tcacgtctgc 1250
gtcagagaca gagtctgact tcaggccagg aactcaactga gattcccata 1300
cactggacag ccaagttacc agccaagtgg tcagtctcag agtcctcccc 1350
ccacatggcc ccagtccttg cagttgtggc caccttccca gtccttattc 1400
tgtggctctg atgacccagt tagtcctgcc agatgtcaact gtagcaagcc 1450
acagacaccc cacaaagttc ccctgttgtg caggcacaaa tatttcctga 1500
aataaatgtt ttggacatag 1520

<210> 24
<211> 433
<212> PRT
<213> Homo Sapien

<400> 24
Met Pro Gly Thr Tyr Ala Pro Ser Thr Thr Leu Ser Ser Pro Ser
1 5 10 15
Thr Gln Gly Leu Gln Glu Gln Ala Arg Ala Leu Met Arg Asp Phe
20 25 30
Pro Leu Val Asp Gly His Asn Asp Leu Pro Leu Val Leu Arg Gln
35 40 45
Val Tyr Gln Lys Gly Leu Gln Asp Val Asn Leu Arg Asn Phe Ser
50 55 60
Tyr Gly Gln Thr Ser Leu Asp Arg Leu Arg Asp Gly Leu Val Gly
65 70 75
Ala Gln Phe Trp Ser Ala Tyr Val Pro Cys Gln Thr Gln Asp Arg
80 85 90
Asp Ala Leu Arg Leu Thr Leu Glu Gln Ile Asp Leu Ile Arg Arg
95 100 105
Met Cys Ala Ser Tyr Ser Glu Leu Glu Leu Val Thr Ser Ala Lys
110 115 120
Ala Leu Asn Asp Thr Gln Lys Leu Ala Cys Leu Ile Gly Val Glu
125 130 135
Gly Gly His Ser Leu Asp Asn Ser Leu Ser Ile Leu Arg Thr Phe
140 145 150
Tyr Met Leu Gly Val Arg Tyr Leu Thr Leu Thr His Thr Cys Asn
155 160 165
Thr Pro Trp Ala Glu Ser Ser Ala Lys Gly Val His Ser Phe Tyr
170 175 180

Asn Asn Ile Ser Gly Leu Thr Asp Phe Gly Glu Lys Val Val Ala
185 190 195
Glu Met Asn Arg Leu Gly Met Met Val Asp Leu Ser His Val Ser
200 205 210
Asp Ala Val Ala Arg Arg Ala Leu Glu Val Ser Gln Ala Pro Val
215 220 225
Ile Phe Ser His Ser Ala Ala Arg Gly Val Cys Asn Ser Ala Arg
230 235 240
Asn Val Pro Asp Asp Ile Leu Gln Leu Leu Lys Lys Asn Gly Gly
245 250 255
Val Val Met Val Ser Leu Ser Met Gly Val Ile Gln Cys Asn Pro
260 265 270
Ser Ala Asn Val Ser Thr Val Ala Asp His Phe Asp His Ile Lys
275 280 285
Ala Val Ile Gly Ser Lys Phe Ile Gly Ile Gly Gly Asp Tyr Asp
290 295 300
Gly Ala Gly Lys Phe Pro Gln Gly Leu Glu Asp Val Ser Thr Tyr
305 310 315
Pro Val Leu Ile Glu Glu Leu Leu Ser Arg Gly Trp Ser Glu Glu
320 325 330
Glu Leu Gln Gly Val Leu Arg Gly Asn Leu Leu Arg Val Phe Arg
335 340 345
Gln Val Glu Lys Val Gln Glu Glu Asn Lys Trp Gln Ser Pro Leu
350 355 360
Glu Asp Lys Phe Pro Asp Glu Gln Leu Ser Ser Ser Cys His Ser
365 370 375
Asp Leu Ser Arg Leu Arg Gln Arg Gln Ser Leu Thr Ser Gly Gln
380 385 390
Glu Leu Thr Glu Ile Pro Ile His Trp Thr Ala Lys Leu Pro Ala
395 400 405
Lys Trp Ser Val Ser Glu Ser Ser Pro His Met Ala Pro Val Leu
410 415 420
Ala Val Val Ala Thr Phe Pro Val Leu Ile Leu Trp Leu
425 430

<210> 25

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 25
agt tctggtc agc ctatgtg cc 22

<210> 26
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 26
cgt gatggtg tctttgtcca tggg 24

<210> 27
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 27
ctccaccaat cccgatgaac ttgg 24

<210> 28
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 28
gagcagattg acctcatacg ccgcattgtgt gcctcttatt ctgagctgga 50

<210> 29
<211> 1416
<212> DNA
<213> Homo Sapien

<400> 29
aaaacctata aatattccgg attattcata ccgtcccacc atcgggcgcg 50
gatccgcggc cgcaattct aaaccaacat gccgggcacc tacgctccct 100
cgaccacact cagtagtccc agcacccagg gcctgcaaga gcaggcacgg 150
gccctgatgc gggacttccc getcgtggac ggccacaacg acctgccccct 200
ggtcctaagg caggttacc agaaaggct acaggatgtt aacctgogca 250
atttcagcta cggccagacc agcctggaca ggcttagaga tggcctcgta 300
ggcgccccagt tctggtcagc ctatgtgcc a gccagaccc aggaccggga 350
tgccctgcgc ctcaccctgg agcagattga cctcatacgc cgcattgtgt 400

cctcctattc tgagctggag cttgtgacct cggtctaaagc tctgaacgac 450
actcagaaat tggcctgcct catcggtgta gagggtggcc actcgctgga 500
caatagcctc tccatcttac gtaccttcta catgctggga gtgcgcatacc 550
tgacgctcac ccacacctgc aacacaccct gggcagagag ctccgctaag 600
ggcgtccact ctttctacaa caacatcagc gggctgactg actttggta 650
gaagggtggtg gcagaaatga accgcctggg catgatggta gacttatccc 700
atgtctcaga tgctgtggca cggcgggccc tggaaagtgtc acaggcacct 750
gtgatcttct cccactcggc tgccggggt gtgtgcaaca gtgctcgaa 800
tgttcctgat gacatcctgc agttctgaa gaagaacggt ggcgtcgtga 850
tggtgtcttt gtccatggga gtaatacagt gcaaccoatc agccaatgtg 900
tccactgtgg cagatcactt cgaccacatc aaggctgtca ttggatccaa 950
gttcatcggtt attgggtggag attatgatgg ggccggcaaa ttccctcagg 1000
ggctggaaga cgtgtccaca taccgggtcc ttagatagagga gttgctgagt 1050
cgtggctgga gtgaggaaga gcttcagggt gtccttcgtg gaaacctgct 1100
gcgggtcttc agacaagtgg aaaaggtaca ggaagaaaaac aaatggcaaa 1150
gccccttgga ggacaagttc ccggatgagc agctgagcag ttcctgccac 1200
tccgacctct cacgtctgct tcagagacag agtctgactt caggccagga 1250
actcaactgag attcccatac actggacagc caagttacca gccaagtgg 1300
cagtctcaga gtcctcccc caccctgaca aaactcacac atgcccacccg 1350
tgcccaagcac ctgaactcct ggggggaccg tcagtcttcc tcttcccccc 1400
aaaacccaag gacacc 1416

<210> 30
<211> 446
<212> PRT
<213> Homo Sapien

<400> 30
Met Pro Gly Thr Tyr Ala Pro Ser Thr Thr Leu Ser Ser Pro Ser
1 5 10 15
Thr Gln Gly Leu Gln Glu Gln Ala Arg Ala Leu Met Arg Asp Phe
20 25 30
Pro Leu Val Asp Gly His Asn Asp Leu Pro Leu Val Leu Arg Gln
35 40 45
Val Tyr Gln Lys Gly Leu Gln Asp Val Asn Leu Arg Asn Phe Ser

50	55	60												
Tyr	Gly	Gln	Thr	Ser	Leu	Asp	Arg	Leu	Arg	Asp	Gly	Leu	Val	Gly
					65			70				75		
Ala	Gln	Phe	Trp	Ser	Ala	Tyr	Val	Pro	Cys	Gln	Thr	Gln	Asp	Arg
					80			85				90		
Asp	Ala	Leu	Arg	Leu	Thr	Leu	Glu	Gln	Ile	Asp	Leu	Ile	Arg	Arg
					95			100				105		
Met	Cys	Ala	Ser	Tyr	Ser	Glu	Leu	Glu	Leu	Val	Thr	Ser	Ala	Lys
					110			115				120		
Ala	Leu	Asn	Asp	Thr	Gln	Lys	Leu	Ala	Cys	Leu	Ile	Gly	Val	Glu
					125			130				135		
Gly	Gly	His	Ser	Leu	Asp	Asn	Ser	Leu	Ser	Ile	Leu	Arg	Thr	Phe
					140			145				150		
Tyr	Met	Leu	Gly	Val	Arg	Tyr	Leu	Thr	Leu	Thr	His	Thr	Cys	Asn
					155			160				165		
Thr	Pro	Trp	Ala	Glu	Ser	Ser	Ala	Lys	Gly	Val	His	Ser	Phe	Tyr
					170			175				180		
Asn	Asn	Ile	Ser	Gly	Leu	Thr	Asp	Phe	Gly	Glu	Lys	Val	Val	Ala
					185			190				195		
Glu	Met	Asn	Arg	Leu	Gly	Met	Met	Val	Asp	Leu	Ser	His	Val	Ser
					200			205				210		
Asp	Ala	Val	Ala	Arg	Arg	Ala	Leu	Glu	Val	Ser	Gln	Ala	Pro	Val
					215			220				225		
Ile	Phe	Ser	His	Ser	Ala	Ala	Arg	Gly	Val	Cys	Asn	Ser	Ala	Arg
					230			235				240		
Asn	Val	Pro	Asp	Asp	Ile	Leu	Gln	Leu	Leu	Lys	Lys	Asn	Gly	Gly
					245			250				255		
Val	Val	Met	Val	Ser	Leu	Ser	Met	Gly	Val	Ile	Gln	Cys	Asn	Pro
					260			265				270		
Ser	Ala	Asn	Val	Ser	Thr	Val	Ala	Asp	His	Phe	Asp	His	Ile	Lys
					275			280				285		
Ala	Val	Ile	Gly	Ser	Lys	Phe	Ile	Gly	Ile	Gly	Gly	Asp	Tyr	Asp
					290			295				300		
Gly	Ala	Gly	Lys	Phe	Pro	Gln	Gly	Leu	Glu	Asp	Val	Ser	Thr	Tyr
					305			310				315		
Pro	Val	Leu	Ile	Glu	Glu	Leu	Leu	Ser	Arg	Gly	Trp	Ser	Glu	Glu
					320			325				330		
Glu	Leu	Gln	Gly	Val	Leu	Arg	Gly	Asn	Leu	Leu	Arg	Val	Phe	Arg
					335			340				345		

Gln Val Glu Lys Val Gln Glu Glu Asn Lys Trp Gln Ser Pro Leu
350 355 360
Glu Asp Lys Phe Pro Asp Glu Gln Leu Ser Ser Ser Cys His Ser
365 370 375
Asp Leu Ser Arg Leu Arg Gln Arg Gln Ser Leu Thr Ser Gly Gln
380 385 390
Glu Leu Thr Glu Ile Pro Ile His Trp Thr Ala Lys Leu Pro Ala
395 400 405
Lys Trp Ser Val Ser Glu Ser Ser Pro His Pro Asp Lys Thr His
410 415 420
Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser
425 430 435
Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
440 445

<210> 31
<211> 1790
<212> DNA
<213> Homo Sapien

<400> 31
cgtccagcga cgtgcggcg gcctggcccg cgccctcccg cgccggcct 50
gcgtcccccg ccctgcgcca ccggcgccga gcccagccc gccgcgcgc 100
ccggcagcg ccggcccat gccggccggc cgccggggcc ccggcgccca 150
atccgcgcgg cggccgcgc cgttgctgcc cctgctgctg ctgctctgcg 200
tcctcgggc gccgcgagcc ggatcaggag cccacacagc tgtgatcagt 250
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<210> 32
<211> 422
<212> PRT
<213> Homo Sapien

<400> 32
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Pro Pro Pro Leu Leu Pro Leu Leu Leu Leu Cys Val Leu Gly
20 25 30
Ala Pro Arg Ala Gly Ser Gly Ala His Thr Ala Val Ile Ser Pro
35 40 45
Gln Asp Pro Thr Leu Leu Ile Gly Ser Ser Leu Leu Ala Thr Cys
50 55 60

Ser Val His Gly Asp Pro Pro Gly Ala Thr Ala Glu Gly Leu Tyr
 65 70 75
 Trp Thr Leu Asn Gly Arg Arg Leu Pro Pro Glu Leu Ser Arg Val
 80 85 90
 Leu Asn Ala Ser Thr Leu Ala Leu Ala Leu Ala Asn Leu Asn Gly
 95 100 105
 Ser Arg Gln Arg Ser Gly Asp Asn Leu Val Cys His Ala Arg Asp
 110 115 120
 Gly Ser Ile Leu Ala Gly Ser Cys Leu Tyr Val Gly Leu Pro Pro
 125 130 135
 Glu Lys Pro Val Asn Ile Ser Cys Trp Ser Lys Asn Met Lys Asp
 140 145 150
 Leu Thr Cys Arg Trp Thr Pro Gly Ala His Gly Glu Thr Phe Leu
 155 160 165
 His Thr Asn Tyr Ser Leu Lys Tyr Lys Leu Arg Trp Tyr Gly Gln
 170 175 180
 Asp Asn Thr Cys Glu Glu Tyr His Thr Val Gly Pro His Ser Cys
 185 190 195
 His Ile Pro Lys Asp Leu Ala Leu Phe Thr Pro Tyr Glu Ile Trp
 200 205 210
 Val Glu Ala Thr Asn Arg Leu Gly Ser Ala Arg Ser Asp Val Leu
 215 220 225
 Thr Leu Asp Ile Leu Asp Val Val Thr Thr Asp Pro Pro Pro Asp
 230 235 240
 Val His Val Ser Arg Val Gly Leu Glu Asp Gln Leu Ser Val
 245 250 255
 Arg Trp Val Ser Pro Pro Ala Leu Lys Asp Phe Leu Phe Gln Ala
 260 265 270
 Lys Tyr Gln Ile Arg Tyr Arg Val Glu Asp Ser Val Asp Trp Lys
 275 280 285
 Val Val Asp Asp Val Ser Asn Gln Thr Ser Cys Arg Leu Ala Gly
 290 295 300
 Leu Lys Pro Gly Thr Val Tyr Phe Val Gln Val Arg Cys Asn Pro
 305 310 315
 Phe Gly Ile Tyr Gly Ser Lys Lys Ala Gly Ile Trp Ser Glu Trp
 320 325 330
 Ser His Pro Thr Ala Ala Ser Thr Pro Arg Ser Glu Arg Pro Gly
 335 340 345
 Pro Gly Gly Gly Ala Cys Glu Pro Arg Gly Gly Glu Pro Ser Ser

350 355 360

Gly Pro Val Arg Arg Glu Leu Lys Gln Phe Leu Gly Trp Leu Lys
365 370 375

Lys His Ala Tyr Cys Ser Asn Leu Ser Phe Arg Leu Tyr Asp Gln
380 385 390

Trp Arg Ala Trp Met Gln Lys Ser His Lys Thr Arg Asn Gln Asp
395 400 405

Glu Gly Ile Leu Pro Ser Gly Arg Arg Gly Thr Ala Arg Gly Pro
410 415 420

Ala Arg

<210> 33

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 33

cccgccccgac gtgcacgtga gcc 23

<210> 34

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 34

ttagccagcc caggaactgc ttg 23

<210> 35

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 35

caagtgcgtc gcaaccctt tggcatctat ggctccaaga aagccggat 50

<210> 36

<211> 1771

<212> DNA

<213> Homo Sapien

<400> 36

cccacgcgtc cgctggtgtt agatcgagca accctctaaa agcagtttag 50

agtggtaaaa aaaaaaaaaa acacaccaaa cgctcgacgc cacaagg 100
atgaaatttc ttctggacat cctcctgctt ctcccggtac tgatcgctg 150
ctccctagag tccttcgtga agttttat tcctaagagg agaaaatcag 200
tcaccggcga aatcggtctg attacaggag ctggcatgg aattgggaga 250
ctgactgcct atgaatttgc taaacttaaa agcaagctgg ttctctggga 300
tataaataag catggactgg aggaaacagc tgccaaatgc aaggactgg 350
tgcccaaggt tcatacctt gtggtagact gcagcaaccc agaagatatt 400
tacagctctg caaagaaggt gaaggcagaa attggagatg ttagtattt 450
agtaaataat gctgggttag tctatacatac agatttggg gctacacaag 500
atcctcagat tgaaaagact tttgaagtta atgtacttgc acatttctgg 550
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tcctaatttc gtaaacactg gtttcatcaa aaatccaagt acaagttgg 800
gaccactct ggaacctgag gaagtggtaa acaggctgat gcatgggatt 850
ctgactgagc agaagatgat ttttattcca tcttctatag ctttttaac 900
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aaatcagtgt taagtttgat gcagtttattt gatataaaat gaaagcgcaa 1000
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aaaatttgc ccataaccgt ttatattaaca tatatttttta ttttgatttgc 1350
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tcacaatgaa tatcatgaac tctcaatggg taggtttcat cctaccatt 1500

gccactctgt ttcctgagag atacctcaca ttccaatgcc aaacatttct 1550
gcacaggaa gctagaggtg gatacacgtg ttgcaagtat aaaaggcatca 1600
ctgggattta aggagaattt agagaatgtt cccacaaatg gcagcaataa 1650
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aaaaaaaaaa aaaaaaaaaa a 1771

<210> 37
<211> 300
<212> PRT
<213> Homo Sapien

<400> 37

Met	Lys	Phe	Leu	Leu	Asp	Ile	Leu	Leu	Leu	Leu	Pro	Leu	Leu	Ile
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Val	Cys	Ser	Leu	Glu	Ser	Phe	Val	Lys	Leu	Phe	Ile	Pro	Lys	Arg
				20				25						30
Arg	Lys	Ser	Val	Thr	Gly	Glu	Ile	Val	Leu	Ile	Thr	Gly	Ala	Gly
				35				40						45
His	Gly	Ile	Gly	Arg	Leu	Thr	Ala	Tyr	Glu	Phe	Ala	Lys	Leu	Lys
				50				55						60
Ser	Lys	Leu	Val	Leu	Trp	Asp	Ile	Asn	Lys	His	Gly	Leu	Glu	Glu
				65				70						75
Thr	Ala	Ala	Lys	Cys	Lys	Gly	Leu	Gly	Ala	Lys	Val	His	Thr	Phe
				80				85						90
Val	Val	Asp	Cys	Ser	Asn	Arg	Glu	Asp	Ile	Tyr	Ser	Ser	Ala	Lys
				95				100						105
Lys	Val	Lys	Ala	Glu	Ile	Gly	Asp	Val	Ser	Ile	Leu	Val	Asn	Asn
				110				115						120
Ala	Gly	Val	Val	Tyr	Thr	Ser	Asp	Leu	Phe	Ala	Thr	Gln	Asp	Pro
				125				130						135
Gln	Ile	Glu	Lys	Thr	Phe	Glu	Val	Asn	Val	Leu	Ala	His	Phe	Trp
				140				145						150
Thr	Thr	Lys	Ala	Phe	Leu	Pro	Ala	Met	Thr	Lys	Asn	Asn	His	Gly
				155				160						165
His	Ile	Val	Thr	Val	Ala	Ser	Ala	Ala	Gly	His	Val	Ser	Val	Pro
				170				175						180
Phe	Leu	Leu	Ala	Tyr	Cys	Ser	Ser	Lys	Phe	Ala	Ala	Val	Gly	Phe
				185				190						195
His	Lys	Thr	Leu	Thr	Asp	Glu	Leu	Ala	Ala	Leu	Gln	Ile	Thr	Gly

200 205 210

Val Lys Thr Thr Cys Leu Cys Pro Asn Phe Val Asn Thr Gly Phe
215 220 225

Ile Lys Asn Pro Ser Thr Ser Leu Gly Pro Thr Leu Glu Pro Glu
230 235 240

Glu Val Val Asn Arg Leu Met His Gly Ile Leu Thr Glu Gln Lys
245 250 255

Met Ile Phe Ile Pro Ser Ser Ile Ala Phe Leu Thr Thr Leu Glu
260 265 270

Arg Ile Leu Pro Glu Arg Phe Leu Ala Val Leu Lys Arg Lys Ile
275 280 285

Ser Val Lys Phe Asp Ala Val Ile Gly Tyr Lys Met Lys Ala Gln
290 295 300

<210> 38

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 38

ggtaaggca gaaattggag atg 23

<210> 39

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 39

atcccatgca tcagcctgtt tacc 24

<210> 40

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 40

gctggtag tctatacatc agattttttt gctacacaag atcccttag 48

<210> 41

<211> 1377

<212> DNA

<213> Homo Sapien

<400> 41
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gaaccaggac tgggtgacg gcagggcagg gggcgctgg ccggggagaa 100
gcgcggggc tggagcacca ccaactggag ggtccggagt agcgagcgcc 150
ccgaaggagg ccatcgggga gccgggaggg gggactgcga gaggacccc 200
gcgtccggc tcccggtgcc agcgctatga ggccactctt cgtcctgctg 250
ctcctggcc tggcggccgg ctgcggccca ctggacgaca acaagatccc 300
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aaaaaaaaaaaa aaaaaaaaaa aaaaaaaa 1377

<210> 42

<211> 243
<212> PRT
<213> Homo Sapien

<400> 42
Met Arg Pro Leu Leu Val Leu Leu Leu Gly Leu Ala Ala Gly
1 5 10 15
Ser Pro Pro Leu Asp Asp Asn Lys Ile Pro Ser Leu Cys Pro Gly
20 25 30
His Pro Gly Leu Pro Gly Thr Pro Gly His His Gly Ser Gln Gly
35 40 45
Leu Pro Gly Arg Asp Gly Arg Asp Gly Arg Asp Gly Ala Pro Gly
50 55 60
Ala Pro Gly Glu Lys Gly Glu Gly Gly Arg Pro Gly Leu Pro Gly
65 70 75
Pro Arg Gly Asp Pro Gly Pro Arg Gly Glu Ala Gly Pro Ala Gly
80 85 90
Pro Thr Gly Pro Ala Gly Glu Cys Ser Val Pro Pro Arg Ser Ala
95 100 105
Phe Ser Ala Lys Arg Ser Glu Ser Arg Val Pro Pro Pro Ser Asp
110 115 120
Ala Pro Leu Pro Phe Asp Arg Val Leu Val Asn Glu Gln Gly His
125 130 135
Tyr Asp Ala Val Thr Gly Lys Phe Thr Cys Gln Val Pro Gly Val
140 145 150
Tyr Tyr Phe Ala Val His Ala Thr Val Tyr Arg Ala Ser Leu Gln
155 160 165
Phe Asp Leu Val Lys Asn Gly Glu Ser Ile Ala Ser Phe Phe Gln
170 175 180
Phe Phe Gly Gly Trp Pro Lys Pro Ala Ser Leu Ser Gly Gly Ala
185 190 195
Met Val Arg Leu Glu Pro Glu Asp Gln Val Trp Val Gln Val Gly
200 205 210
Val Gly Asp Tyr Ile Gly Ile Tyr Ala Ser Ile Lys Thr Asp Ser
215 220 225
Thr Phe Ser Gly Phe Leu Val Tyr Ser Asp Trp His Ser Ser Pro
230 235 240
Val Phe Ala

<210> 43
<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 43
tacaggccca gtcaggacca gggg 24

<210> 44
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 44
agccagcctc gctctcg 18

<210> 45
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 45
gtctgcgatc aggtctgg 18

<210> 46
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 46
gaaagaggca atggattcgc 20

<210> 47
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 47
gacttacact tgccagcaca gcac 24

<210> 48
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 48
ggagcaccac caactggagg gtccggagta gcgagcgccc cgaag 45

<210> 49
<211> 1876
<212> DNA
<213> Homo Sapien

<400> 49
ctctttgtc caccagccca gcctgactcc tggagattgt gaatagctcc 50
atccagcctg agaaacaagc cgggtggctg agccaggctg tgacacggagc 100
acctgacggg cccaacagac ccattgctgca tccagagacc tcccctggcc 150
gggggcacatct cctggctgtg ctcctggccc tccttggcac cacctggca 200
gaggtgtggc caccggcact gcaggagcag gctccgatgg ccggagccct 250
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gcctgctttt gattgggaag atgggcttca attagatggc gaaggagagg 1750
acaccgcccag tggtccaaaa aggctgtctt cttccacctg gcccagaccc 1800
tgtggggcag cggagcttcc ctgtggcatg aaccccacgg ggtattaaat 1850
tatgaatcag ctgaaaaaaaaaaaaa 1876

<210> 50
<211> 455
<212> PRT
<213> Homo Sapien

<400> 50
Met Leu His Pro Glu Thr Ser Pro Gly Arg Gly His Leu Leu Ala
1 5 10 15
Val Leu Leu Ala Leu Leu Gly Thr Thr Trp Ala Glu Val Trp Pro
20 25 30
Pro Gln Leu Gln Glu Gln Ala Pro Met Ala Gly Ala Leu Asn Arg
35 40 45
Lys Glu Ser Phe Leu Leu Ser Leu His Asn Arg Leu Arg Ser
50 55 60
Trp Val Gln Pro Pro Ala Ala Asp Met Arg Arg Leu Asp Trp Ser
65 70 75
Asp Ser Leu Ala Gln Leu Ala Gln Ala Arg Ala Ala Leu Cys Gly
80 85 90
Ile Pro Thr Pro Ser Leu Ala Ser Gly Leu Trp Arg Thr Leu Gln
95 100 105
Val Gly Trp Asn Met Gln Leu Leu Pro Ala Gly Leu Ala Ser Phe

110	115	120
Val Glu Val Val Ser Leu Trp Phe Ala Glu Gly Gln Arg Tyr Ser		
125	130	135
His Ala Ala Gly Glu Cys Ala Arg Asn Ala Thr Cys Thr His Tyr		
140	145	150
Thr Gln Leu Val Trp Ala Thr Ser Ser Gln Leu Gly Cys Gly Arg		
155	160	165
His Leu Cys Ser Ala Gly Gln Thr Ala Ile Glu Ala Phe Val Cys		
170	175	180
Ala Tyr Ser Pro Gly Gly Asn Trp Glu Val Asn Gly Lys Thr Ile		
185	190	195
Ile Pro Tyr Lys Lys Gly Ala Trp Cys Ser Leu Cys Thr Ala Ser		
200	205	210
Val Ser Gly Cys Phe Lys Ala Trp Asp His Ala Gly Gly Leu Cys		
215	220	225
Glu Val Pro Arg Asn Pro Cys Arg Met Ser Cys Gln Asn His Gly		
230	235	240
Arg Leu Asn Ile Ser Thr Cys His Cys His Cys Pro Pro Gly Tyr		
245	250	255
Thr Gly Arg Tyr Cys Gln Val Arg Cys Ser Leu Gln Cys Val His		
260	265	270
Gly Arg Phe Arg Glu Glu Cys Ser Cys Val Cys Asp Ile Gly		
275	280	285
Tyr Gly Gly Ala Gln Cys Ala Thr Lys Val His Phe Pro Phe His		
290	295	300
Thr Cys Asp Leu Arg Ile Asp Gly Asp Cys Phe Met Val Ser Ser		
305	310	315
Glu Ala Asp Thr Tyr Tyr Arg Ala Arg Met Lys Cys Gln Arg Lys		
320	325	330
Gly Gly Val Leu Ala Gln Ile Lys Ser Gln Lys Val Gln Asp Ile		
335	340	345
Leu Ala Phe Tyr Leu Gly Arg Leu Glu Thr Thr Asn Glu Val Thr		
350	355	360
Asp Ser Asp Phe Glu Thr Arg Asn Phe Trp Ile Gly Leu Thr Tyr		
365	370	375
Lys Thr Ala Lys Asp Ser Phe Arg Trp Ala Thr Gly Glu His Gln		
380	385	390
Ala Phe Thr Ser Phe Ala Phe Gly Gln Pro Asp Asn His Gly Leu		
395	400	405

Val Trp Leu Ser Ala Ala Met Gly Phe Gly Asn Cys Val Glu Leu
410 415 420

Gln Ala Ser Ala Ala Phe Asn Trp Asn Asp Gln Arg Cys Lys Thr
425 430 435

Arg Asn Arg Tyr Ile Cys Gln Phe Ala Gln Glu His Ile Ser Arg
440 445 450

Trp Gly Pro Gly Ser
455

<210> 51

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 51

aggaacttct ggatcgggct cacc 24

<210> 52

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 52

gggtctgggc caggtggaag agag 24

<210> 53

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 53

gccaaaggact cttccgctg ggccacaggg gagcaccagg cttc 45

<210> 54

<211> 2331

<212> DNA

<213> Homo Sapien

<400> 54

cggacgcgtg ggctgggcgc tgcaaagcgt gtcccgccgg gtccccgagc 50

gtcccgccgc ctgcggccgc catgctcctg ctgctggggc tgtgcctggg 100

gctgtccctg tgtgtggggc cgcaagaaaga ggccgcagagc tggggccact 150

cttcggagca ggtatggactc agggtcccga ggcaagtca gactgttcag 200

aggctgaaaa ccaaaccctt gatgacagaa ttctcagtga agtctaccat 250
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cgatgagaag atggccacct gcaagccagg aagacggccc tcaccagaca 2200
ccatgtctgc tggcacctt atcttgacc tcccagcctc cagaactgtg 2250
agaaaataat gtgtttgtt taagctaaaa aaaaaaaaaa aaaaaaaaaa 2300
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa a 2331

<210> 55
<211> 694
<212> PRT
<213> Homo Sapien

<400> 55
Met Leu Leu Leu Leu Gly Leu Cys Leu Gly Leu Ser Leu Cys Val
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Gly Ser Gln Glu Glu Ala Gln Ser Trp Gly His Ser Ser Glu Gln
20 25 30
Asp Gly Leu Arg Val Pro Arg Gln Val Arg Leu Leu Gln Arg Leu
35 40 45
Lys Thr Lys Pro Leu Met Thr Glu Phe Ser Val Lys Ser Thr Ile
50 55 60
Ile Ser Arg Tyr Ala Phe Thr Thr Val Ser Cys Arg Met Leu Asn
65 70 75
Arg Ala Ser Glu Asp Gln Asp Ile Glu Phe Gln Met Gln Ile Pro
80 85 90
Ala Ala Ala Phe Ile Thr Asn Phe Thr Met Leu Ile Gly Asp Lys
95 100 105
Val Tyr Gln Gly Glu Ile Thr Glu Arg Glu Lys Lys Ser Gly Asp
110 115 120

Arg Val Lys Glu Lys Arg Asn Lys Thr Thr Glu Glu Asn Gly Glu
 125 130 135
 Lys Gly Thr Glu Ile Phe Arg Ala Ser Ala Val Ile Pro Ser Lys
 140 145 150
 Asp Lys Ala Ala Phe Phe Leu Ser Tyr Glu Glu Leu Leu Gln Arg
 155 160 165
 Arg Leu Gly Lys Tyr Glu His Ser Ile Ser Val Arg Pro Gln Gln
 170 175 180
 Leu Ser Gly Arg Leu Ser Val Asp Val Asn Ile Leu Glu Ser Ala
 185 190 195
 Gly Ile Ala Ser Leu Glu Val Leu Pro Leu His Asn Ser Arg Gln
 200 205 210
 Arg Gly Ser Gly Arg Gly Glu Asp Asp Ser Gly Pro Pro Pro Ser
 215 220 225
 Thr Val Ile Asn Gln Asn Glu Thr Phe Ala Asn Ile Ile Phe Lys
 230 235 240
 Pro Thr Val Val Gln Gln Ala Arg Ile Ala Gln Asn Gly Ile Leu
 245 250 255
 Gly Asp Phe Ile Ile Arg Tyr Asp Val Asn Arg Glu Gln Ser Ile
 260 265 270
 Gly Asp Ile Gln Val Leu Asn Gly Tyr Phe Val His Tyr Phe Ala
 275 280 285
 Pro Lys Asp Leu Pro Pro Leu Pro Lys Asn Val Val Phe Val Leu
 290 295 300
 Asp Ser Ser Ala Ser Met Val Gly Thr Lys Leu Arg Gln Thr Lys
 305 310 315
 Asp Ala Leu Phe Thr Ile Leu His Asp Leu Arg Pro Gln Asp Arg
 320 325 330
 Phe Ser Ile Ile Gly Phe Ser Asn Arg Ile Lys Val Trp Lys Asp
 335 340 345
 His Leu Ile Ser Val Thr Pro Asp Ser Ile Arg Asp Gly Lys Val
 350 355 360
 Tyr Ile His His Met Ser Pro Thr Gly Gly Thr Asp Ile Asn Gly
 365 370 375
 Ala Leu Gln Arg Ala Ile Arg Leu Leu Asn Lys Tyr Val Ala His
 380 385 390
 Ser Gly Ile Gly Asp Arg Ser Val Ser Leu Ile Val Phe Leu Thr
 395 400 405
 Asp Gly Lys Pro Thr Val Gly Glu Thr His Thr Leu Lys Ile Leu

410	415	420
Asn Asn Thr Arg Glu Ala Ala Arg Gly Gln Val Cys Ile Phe Thr		
425	430	435
Ile Gly Ile Gly Asn Asp Val Asp Phe Arg Leu Leu Glu Lys Leu		
440	445	450
Ser Leu Glu Asn Cys Gly Leu Thr Arg Arg Val His Glu Glu Glu		
455	460	465
Asp Ala Gly Ser Gln Leu Ile Gly Phe Tyr Asp Glu Ile Arg Thr		
470	475	480
Pro Leu Leu Ser Asp Ile Arg Ile Asp Tyr Pro Pro Ser Ser Val		
485	490	495
Val Gln Ala Thr Lys Thr Leu Phe Pro Asn Tyr Phe Asn Gly Ser		
500	505	510
Glu Ile Ile Ile Ala Gly Lys Leu Val Asp Arg Lys Leu Asp His		
515	520	525
Leu His Val Glu Val Thr Ala Ser Asn Ser Lys Lys Phe Ile Ile		
530	535	540
Leu Lys Thr Asp Val Pro Val Arg Pro Gln Lys Ala Gly Lys Asp		
545	550	555
Val Thr Gly Ser Pro Arg Pro Gly Gly Asp Gly Glu Gly Asp Thr		
560	565	570
Asn His Ile Glu Arg Leu Trp Ser Tyr Leu Thr Thr Lys Glu Leu		
575	580	585
Leu Ser Ser Trp Leu Gln Ser Asp Asp Glu Pro Glu Lys Glu Arg		
590	595	600
Leu Arg Gln Arg Ala Gln Ala Leu Ala Val Ser Tyr Arg Phe Leu		
605	610	615
Thr Pro Phe Thr Ser Met Lys Leu Arg Gly Pro Val Pro Arg Met		
620	625	630
Asp Gly Leu Glu Glu Ala His Gly Met Ser Ala Ala Met Gly Pro		
635	640	645
Glu Pro Val Val Gln Ser Val Arg Gly Ala Gly Thr Gln Pro Gly		
650	655	660
Pro Leu Leu Lys Lys Pro Asn Ser Val Lys Lys Lys Gln Asn Lys		
665	670	675
Thr Lys Lys Arg His Gly Arg Asp Gly Val Phe Pro Leu His His		
680	685	690
Leu Gly Ile Arg		

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<210> 56
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 56
gtgggaacca aactccggca gacc 24

<210> 57
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 57
cacatcgagc gtctctgg 18

<210> 58
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 58
agccgctcct tctccggttc atcg 24

<210> 59
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 59
tggaaggacc acttgatatac agtcactcca gacagcatca gggatggg 48

<210> 60
<211> 1413
<212> DNA
<213> Homo Sapien

<400> 60
cgacgcgtg gggtgcccgaa catggcgagt gtagtgctgc cgagcggatc 50
ccagtgtgcg gcggcagcgg cggcggcggc gcctccggg ctccggcttc 100
tgctgttgc tttctccggcc gggcactga tccccacagg tgatgggcag 150
aatctgttta cgaaagacgt qacaqtqatc qaqqqaqaaqq ttqcqaccat 200

cagttgccaa gtcaataaga gtgacgactc tgtgattcag ctactgaatc 250
ccaacaggca gaccatttat ttcagggact tcaggccctt gaaggacagc 300
aggtttcagt tgctgaattt ttcttagcagt gaactcaaag tatcattgac 350
aaacgtctca atttctgatg aaggaagata cttttgccag ctctataccg 400
atcccccaca ggaaagttac accaccatca cagtccttgt cccaccacgt 450
aatctgatga tcgatatatcca gaaagacact gcggtggaag gtgaggagat 500
tgaagtcaac tgcactgcta tggccagcaa gccagccacg actatcaggt 550
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gaaacctgca gacccagcgg tatctagaag tacagtataa gcctcaagt 750
cacattcaga tgacttatcc tctacaaggc ttaaccggg aaggggacgc 800
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cccaacctgt tcatcaataa cctaaaacaaa acagataatg gtacataccg 950
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atgtatacga tccccccaca actatccctc ctcccacaac aaccaccacc 1050
accaccacca ccaccaccac caccatcctt accatcatca cagattcccg 1100
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ctttttgttt caatgaggtg tccaaactggc cctattttaga tgataaaagag 1400
acagtgatat tgg 1413

<210> 61
<211> 440
<212> PRT
<213> Homo Sapien

<400> 61
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Ala Ala Ala Ala Ala Pro Pro Gly Leu Arg Leu Leu Leu Leu
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 Phe Ser Ala Ala Ala Leu Ile Pro Thr Gly Asp Gly Gln Asn Leu
 35 40 45
 Phe Thr Lys Asp Val Thr Val Ile Glu Gly Glu Val Ala Thr Ile
 50 55 60
 Ser Cys Gln Val Asn Lys Ser Asp Asp Ser Val Ile Gln Leu Leu
 65 70 75
 Asn Pro Asn Arg Gln Thr Ile Tyr Phe Arg Asp Phe Arg Pro Leu
 80 85 90
 Lys Asp Ser Arg Phe Gln Leu Leu Asn Phe Ser Ser Ser Glu Leu
 95 100 105
 Lys Val Ser Leu Thr Asn Val Ser Ile Ser Asp Glu Gly Arg Tyr
 110 115 120
 Phe Cys Gln Leu Tyr Thr Asp Pro Pro Gln Glu Ser Tyr Thr Thr
 125 130 135
 Ile Thr Val Leu Val Pro Pro Arg Asn Leu Met Ile Asp Ile Gln
 140 145 150
 Lys Asp Thr Ala Val Glu Gly Glu Glu Ile Glu Val Asn Cys Thr
 155 160 165
 Ala Met Ala Ser Lys Pro Ala Thr Thr Ile Arg Trp Phe Lys Gly
 170 175 180
 Asn Thr Glu Leu Lys Gly Lys Ser Glu Val Glu Glu Trp Ser Asp
 185 190 195
 Met Tyr Thr Val Thr Ser Gln Leu Met Leu Lys Val His Lys Glu
 200 205 210
 Asp Asp Gly Val Pro Val Ile Cys Gln Val Glu His Pro Ala Val
 215 220 225
 Thr Gly Asn Leu Gln Thr Gln Arg Tyr Leu Glu Val Gln Tyr Lys
 230 235 240
 Pro Gln Val His Ile Gln Met Thr Tyr Pro Leu Gln Gly Leu Thr
 245 250 255
 Arg Glu Gly Asp Ala Leu Glu Leu Thr Cys Glu Ala Ile Gly Lys
 260 265 270
 Pro Gln Pro Val Met Val Thr Trp Val Arg Val Asp Asp Glu Met
 275 280 285
 Pro Gln His Ala Val Leu Ser Gly Pro Asn Leu Phe Ile Asn Asn
 290 295 300
 Leu Asn Lys Thr Asp Asn Gly Thr Tyr Arg Cys Glu Ala Ser Asn

305 310 315

Ile Val Gly Lys Ala His Ser Asp Tyr Met Leu Tyr Val Tyr Asp
320 325 330

Pro Pro Thr Thr Ile Pro Pro Pro Thr Thr Thr Thr Thr Thr Thr
335 340 345

Thr Thr Thr Thr Thr Ile Leu Thr Ile Ile Thr Asp Ser Arg
350 355 360

Ala Gly Glu Glu Gly Ser Ile Arg Ala Val Asp His Ala Val Ile
365 370 375

Gly Gly Val Val Ala Val Val Val Phe Ala Met Leu Cys Leu Leu
380 385 390

Ile Ile Leu Gly Arg Tyr Phe Ala Arg His Lys Gly Thr Tyr Phe
395 400 405

Thr His Glu Ala Lys Gly Ala Asp Asp Ala Ala Asp Ala Asp Thr
410 415 420

Ala Ile Ile Asn Ala Glu Gly Gly Gln Asn Asn Ser Glu Glu Lys
425 430 435

Lys Glu Tyr Phe Ile
440

<210> 62
<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 62

ggattctgct gttgtcttc tccg 24

<210> 63

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 63

gtacactgtg accagtcagc 20

<210> 64

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 64
atcatcacag attcccgagc 20

<210> 65
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 65
ttcaatctcc tcaccttcca ccgc 24

<210> 66
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 66
atagctgtgt ctgcgtctgc tgcg 24

<210> 67
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 67
cgcggcactg atccccacag gtgatggca gaatctgtt acgaaagacg 50

<210> 68
<211> 2555
<212> DNA
<213> Homo Sapien

<400> 68
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ccctctgtg ctgcgcgtgc tcctgtact ggccctgggg cctgggggtgc 200
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actgcccggcc aggggaccac ggtgccccga gacgtgccac ccgacacgg 300
ggggctgtac gtcttgaga acggcatcac catgctcgac gcaaggagct 350
ttgcggcct gccggcctg cagctcctgg acctgtcaca gaaccagatc 400

gccagcctgc gcctgccccg cctgtgtctg ctggacctca gccacaacag 450
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ttgttaagaca aacgatgata tgaaggcctt ttgttaagaaa aaataaaaaaa 2550
aaaaaa 2555

<210> 69

<211> 598

<212> PRT

<213> Homo Sapien

<400> 69

Met Cys Ser Arg Val Pro Leu Leu Leu Pro Leu Leu Leu Leu Leu
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Ala Leu Gly Pro Gly Val Gln Gly Cys Pro Ser Gly Cys Gln Cys
20 25 30

Ser Gln Pro Gln Thr Val Phe Cys Thr Ala Arg Gln Gly Thr Thr
35 40 45

Val Pro Arg Asp Val Pro Pro Asp Thr Val Gly Leu Tyr Val Phe
50 55 60

Glu Asn Gly Ile Thr Met Leu Asp Ala Ser Ser Phe Ala Gly Leu
65 70 75

Pro Gly Leu Gln Leu Leu Asp Leu Ser Gln Asn Gln Ile Ala Ser
80 85 90

Leu Arg Leu Pro Arg Leu Leu Leu Leu Asp Leu Ser His Asn Ser
95 100 105

Leu Leu Ala Leu Glu Pro Gly Ile Leu Asp Thr Ala Asp Val Glu

110	115	120
Ala Leu Arg Leu Ala Gly Leu Gly Leu Gln Gln Leu Asp Glu Gly		
125	130	135
Leu Phe Ser Arg Leu Arg Asn Leu His Asp Leu Asp Val Ser Asp		
140	145	150
Asn Gln Leu Glu Arg Val Pro Pro Val Ile Arg Gly Leu Arg Gly		
155	160	165
Leu Thr Arg Leu Arg Leu Ala Gly Asn Thr Arg Ile Ala Gln Leu		
170	175	180
Arg Pro Glu Asp Leu Ala Gly Leu Ala Ala Leu Gln Glu Leu Asp		
185	190	195
Val Ser Asn Leu Ser Leu Gln Ala Leu Pro Gly Asp Leu Ser Gly		
200	205	210
Leu Phe Pro Arg Leu Arg Leu Leu Ala Ala Ala Arg Asn Pro Phe		
215	220	225
Asn Cys Val Cys Pro Leu Ser Trp Phe Gly Pro Trp Val Arg Glu		
230	235	240
Ser His Val Thr Leu Ala Ser Pro Glu Glu Thr Arg Cys His Phe		
245	250	255
Pro Pro Lys Asn Ala Gly Arg Leu Leu Leu Glu Leu Asp Tyr Ala		
260	265	270
Asp Phe Gly Cys Pro Ala Thr Thr Thr Ala Thr Val Pro Thr		
275	280	285
Thr Arg Pro Val Val Arg Glu Pro Thr Ala Leu Ser Ser Ser Leu		
290	295	300
Ala Pro Thr Trp Leu Ser Pro Thr Ala Pro Ala Thr Glu Ala Pro		
305	310	315
Ser Pro Pro Ser Thr Ala Pro Pro Thr Val Gly Pro Val Pro Gln		
320	325	330
Pro Gln Asp Cys Pro Pro Ser Thr Cys Leu Asn Gly Gly Thr Cys		
335	340	345
His Leu Gly Thr Arg His His Leu Ala Cys Leu Cys Pro Glu Gly		
350	355	360
Phe Thr Gly Leu Tyr Cys Glu Ser Gln Met Gly Gln Gly Thr Arg		
365	370	375
Pro Ser Pro Thr Pro Val Thr Pro Arg Pro Pro Arg Ser Leu Thr		
380	385	390
Leu Gly Ile Glu Pro Val Ser Pro Thr Ser Leu Arg Val Gly Leu		
395	400	405

Gln Arg Tyr Leu Gln Gly Ser Ser Val Gln Leu Arg Ser Leu Arg
410 415 420

Leu Thr Tyr Arg Asn Leu Ser Gly Pro Asp Lys Arg Leu Val Thr
425 430 435

Leu Arg Leu Pro Ala Ser Leu Ala Glu Tyr Thr Val Thr Gln Leu
440 445 450

Arg Pro Asn Ala Thr Tyr Ser Val Cys Val Met Pro Leu Gly Pro
455 460 465

Gly Arg Val Pro Glu Gly Glu Ala Cys Gly Glu Ala His Thr
470 475 480

Pro Pro Ala Val His Ser Asn His Ala Pro Val Thr Gln Ala Arg
485 490 495

Glu Gly Asn Leu Pro Leu Leu Ile Ala Pro Ala Leu Ala Ala Val
500 505 510

Leu Leu Ala Ala Leu Ala Ala Val Gly Ala Ala Tyr Cys Val Arg
515 520 525

Arg Gly Arg Ala Met Ala Ala Ala Gln Asp Lys Gly Gln Val
530 535 540

Gly Pro Gly Ala Gly Pro Leu Glu Leu Glu Gly Val Lys Val Pro
545 550 555

Leu Glu Pro Gly Pro Lys Ala Thr Glu Gly Gly Glu Ala Leu
560 565 570

Pro Ser Gly Ser Glu Cys Glu Val Pro Leu Met Gly Phe Pro Gly
575 580 585

Pro Gly Leu Gln Ser Pro Leu His Ala Lys Pro Tyr Ile
590 595

<210> 70

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 70

ccctccactg cccccaccgac tg 22

<210> 71

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 71
cggttctggg gacgttaggg ctcg 24

<210> 72
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 72
ctgcccaccc tccacacctgc tcaat 25

<210> 73
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 73
aggactgcc accgtccacc tgcctcaatg gggcacatg ccacc 45

<210> 74
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 74
acgcaaagcc ctacatctaa gccagagaga gacagggcag ctggg 45

<210> 75
<211> 1077
<212> DNA
<213> Homo Sapien

<400> 75
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ggcctccagg caacatgggg ggcccagtca gagagccggc actctcagtt 200
gccctctggc tgagttgggg ggcagctctg ggggcgtgg cttgtgccat 250
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tggcagagtc tcccgagca gagtccgat gccctggaag cctgggagaa 400

tggggagaga tccccgaaaaa ggagagcagt gctcacccaa aaacagaaga 450
agcagcactc tgtcctgcac ctggttccca ttaacgccac ctccaaggat 500
gactccgatg tgacagaggt gatgtggcaa ccagcttta ggcgtggag 550
aggcctacag gcccaaggat atggtgtccg aatccaggat gctggagttt 600
atctgctgta tagccaggtc ctgtttcaag acgtgacttt caccatgggt 650
caggtggtgt ctcgagaagg ccaaggaagg caggagactc tattccgatg 700
tataagaagt atgcctccc acccgaccg ggcctacaac agctgctata 750
gchgaggtgt cttccattta caccaagggg atattctgag tgtcataatt 800
ccccgggcaa gggcgaact taacctctt ccacatggaa ccttctggg 850
gtttgtgaaa ctgtgattgt gttataaaaa gtggctccca gcttggaga 900
ccagggtgaa tacatactgg agacagccaa gagctgagta tataaaggag 950
aggaaatgtg caggaacaga ggcatttcc tgggttggc tccccgttcc 1000
tcactttcc ctttcattc ccaccccta gactttgatt ttacggatat 1050
cttgcttctg ttccccatgg agctccg 1077

<210> 76
<211> 250
<212> PRT
<213> Homo Sapien

<400> 76
Met Pro Ala Ser Ser Pro Phe Leu Leu Ala Pro Lys Gly Pro Pro
1 5 10 15
Gly Asn Met Gly Gly Pro Val Arg Glu Pro Ala Leu Ser Val Ala
20 25 30
Leu Trp Leu Ser Trp Gly Ala Ala Leu Gly Ala Val Ala Cys Ala
35 40 45
Met Ala Leu Leu Thr Gln Gln Thr Glu Leu Gln Ser Leu Arg Arg
50 55 60
Glu Val Ser Arg Leu Gln Gly Thr Gly Gly Pro Ser Gln Asn Gly
65 70 75
Glu Gly Tyr Pro Trp Gln Ser Leu Pro Glu Gln Ser Ser Asp Ala
80 85 90
Leu Glu Ala Trp Glu Asn Gly Glu Arg Ser Arg Lys Arg Arg Ala
95 100 105
Val Leu Thr Gln Lys Gln Lys Lys Gln His Ser Val Leu His Leu
110 115 120

Val Pro Ile Asn Ala Thr Ser Lys Asp Asp Ser Asp Val Thr Glu
125 130 135
Val Met Trp Gln Pro Ala Leu Arg Arg Gly Arg Gly Leu Gln Ala
140 145 150
Gln Gly Tyr Gly Val Arg Ile Gln Asp Ala Gly Val Tyr Leu Leu
155 160 165
Tyr Ser Gln Val Leu Phe Gln Asp Val Thr Phe Thr Met Gly Gln
170 175 180
Val Val Ser Arg Glu Gly Gln Gly Arg Gln Glu Thr Leu Phe Arg
185 190 195
Cys Ile Arg Ser Met Pro Ser His Pro Asp Arg Ala Tyr Asn Ser
200 205 210
Cys Tyr Ser Ala Gly Val Phe His Leu His Gln Gly Asp Ile Leu
215 220 225
Ser Val Ile Ile Pro Arg Ala Arg Ala Lys Leu Asn Leu Ser Pro
230 235 240
His Gly Thr Phe Leu Gly Phe Val Lys Leu
245 250

<210> 77
<211> 2849
<212> DNA
<213> Homo Sapien

<400> 77
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gggggggacc tgtggctgct cgtaccgccc cccaccctcc tcttctgcac 150
tgccgtcctc cggaagacct tttccctgc tctgtttct tcacccgagtc 200
tgtgcatcgc cccggacctg gccgggagga ggcttggccg gccccggatg 250
ctcttaggggc ggcgcgggag gagcggccgg cggacggagg ggcggcccg 300
gaagatgggc tcccgtggac agggactctt gctggcgta cgtccgtcc 350
ttgccttgc ctctggcctg gtcctgagtc gtgtgcggcc tgcgtccagg 400
gaacacggagg agtgggaggg gactgaggag ctgccgtcgc ctccggacca 450
tgccgagagg gctgaagaac aacatgaaaa atacaggccc agtcaggacc 500
aggggctccc tgcttcccg tgcttgcgt gctgtgaccc cggtacccctcc 550
atgtacccgg cgaccgcgt gccccagatc aacatcacta tcttgaaagg 600
ggagaagggt gaccgcggag atcgaggcct ccaaggaaa tatggcaaaa 650

caggctcagc aggggccagg ggccacactg gacccaaagg gcagaaggc 700
tccatggggg cccctgggg a cggtgc a a g c c a c t a c g c c g c t t t c 750
ggtggccgg aagaagccca tgcacagcaa ccactactac cagacggta 800
tcttcgacac ggagttcgta aacctctacg accacttcaa catgttcacc 850
ggcaagttct actgctacgt gcccggcctc tacttcttca gcctcaacgt 900
gcacacctgg aaccagaagg agacctacct gcacatcatg aagaacgagg 950
aggaggttgt gatcttgttc ggcagggtgg ggcaccgcag catcatgcaa 1000
agccagagcc tgcgttgaa gctgcgagag caggaccagg tgtgggtacg 1050
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ctcccccagc tcttccaga aaacattaaa ctcagaattt tgtttcaa 2849

<210> 78
<211> 281
<212> PRT
<213> Homo Sapien

<400> 78
Met Gly Ser Arg Gly Gln Gly Leu Leu Leu Ala Tyr Cys Leu Leu
1 5 10 15
Leu Ala Phe Ala Ser Gly Leu Val Leu Ser Arg Val Pro His Val
20 25 30
Gln Gly Glu Gln Gln Glu Trp Glu Gly Thr Glu Glu Leu Pro Ser
35 40 45
Pro Pro Asp His Ala Glu Arg Ala Glu Glu Gln His Glu Lys Tyr
50 55 60
Arg Pro Ser Gln Asp Gln Gly Leu Pro Ala Ser Arg Cys Leu Arg
65 70 75
Cys Cys Asp Pro Gly Thr Ser Met Tyr Pro Ala Thr Ala Val Pro
80 85 90
Gln Ile Asn Ile Thr Ile Leu Lys Gly Glu Lys Gly Asp Arg Gly
95 100 105
Asp Arg Gly Leu Gln Gly Lys Tyr Gly Lys Thr Gly Ser Ala Gly

50
110 115 120

Ala Arg Gly His Thr Gly Pro Lys Gly Gln Lys Gly Ser Met Gly
125 130 135

Ala Pro Gly Glu Arg Cys Lys Ser His Tyr Ala Ala Phe Ser Val
140 145 150

Gly Arg Lys Lys Pro Met His Ser Asn His Tyr Tyr Gln Thr Val
155 160 165

Ile Phe Asp Thr Glu Phe Val Asn Leu Tyr Asp His Phe Asn Met
170 175 180

Phe Thr Gly Lys Phe Tyr Cys Tyr Val Pro Gly Leu Tyr Phe Phe
185 190 195

Ser Leu Asn Val His Thr Trp Asn Gln Lys Glu Thr Tyr Leu His
200 205 210

Ile Met Lys Asn Glu Glu Val Val Ile Leu Phe Ala Gln Val
215 220 225

Gly Asp Arg Ser Ile Met Gln Ser Gln Ser Leu Met Leu Glu Leu
230 235 240

Arg Glu Gln Asp Gln Val Trp Val Arg Leu Tyr Lys Gly Glu Arg
245 250 255

Glu Asn Ala Ile Phe Ser Glu Glu Leu Asp Thr Tyr Ile Thr Phe
260 265 270

Ser Gly Tyr Leu Val Lys His Ala Thr Glu Pro
275 280

<210> 79
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 79
tacaggccca gtcaggacca gggg 24

<210> 80
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 80
ctgaagaagt agaggccggg cacg 24

<210> 81

<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 81
cccggtgctt gcgcgtgtgt gaccccggtt cctccatgtt cccgg 45

<210> 82
<211> 2284
<212> DNA
<213> Homo Sapien

<400> 82
gcggagcatc cgctgcggtc ctcgccgaga ccccccggcg gattcgccgg 50
tccttcccgcc gggcgcgaca gagctgtcct cgcacctggta tggcaggcagg 100
ggcgccgggg tcctctcgac gccagagaga aatctcatca tctgtgcagc 150
cttcttaaag caaactaaga ccagagggag gattatcctt gacctttgaa 200
gacaaaaact aaactgaaat ttaaaatgtt cttcggggga gaagggagct 250
tgacttacac tttggtaata atttgcttcc tgacactaag gctgtctgct 300
agtcaatttgc gcctcaaaaa gagtcttagaa gatgttgtca ttgacatcca 350
gtcatctttt tctaaggaa tcagaggcaa tgagccgttataacttcaa 400
ctcaagaaga ctgcattaaat tcttgctgtt caacaaaaaa catatcaggg 450
gacaaagcat gtaacttgat gatcttcgac actcgaaaaa cagcttagaca 500
acccaactgc taccttatttt tctgtcccaa cgaggaagcc tgtccattga 550
aaccagcaaa aggacttatg agttacagga taattacaga ttttccatct 600
ttgaccagaa atttgccaag ccaagagtta cccccaggaaag attctctt 650
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attattcaaa gcccacccat atctcatggta gagacacact ttctcagaag 750
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tttcctctga tcaagaaata gctcatctgc tgccgtaaaaa tgtgagtgcg 900
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tctcagccct ccacgaccct catttctaca gttttcacac gggctgcggc 1100
tacactccaa gcaatggcta caacagcagt tctgactacc acctttcagg 1150
cacctacgga ctcgaaaggc agcttagaaa ccataccgtt tacagaaatc 1200
tccaacttaa ctttgaacac agggaatgtg tataacccta ctgcacttcc 1250
tatgtcaa at gtggagtctt ccactatgaa taaaactgct tctgggaag 1300
gtagggaggc cagtccaggc agttccccc agggcagtgt tccagaaaat 1350
cagta cggcc ttccatggta aaaatggctt cttatcggtt ccctgctt 1400
tggtgtcctg ttctggta taggcctcgt ctcctgggt agaatcctt 1450
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acacctgggt gattttgtt ttttagtag agacggggtt tcaccatgtt 1850
ggtcaggctg gtctcaaact cctgacccctg tgatccaccc tctcggcct 1900
cccaaagtgc tggattaca ggcattgagcc accacagctg gccccctt 1950
gttttatgtt tggaaaaatgaa gaaggaatgaa agtggaaacc aaatttaggtt 2000
attttgggtt atctgtctt aaaaatattttt gttttttttt aaaaaacaa agctctatgt 2050
aaagtaataa agtataatttccatataat ttcaaaatttcc aactggcttt 2100
tatgcaaaga aacaggtagt gacatctagg ttccattca ttccatctt 2150
tggttccaga taaaatcaac tgtttatatc aatttctaat ggatttgctt 2200
ttctttttat atggattcct ttaaaactta ttccagatgt agttccctcc 2250
aattaaatat ttgaataat ctttggttac tcaa 2284

<210> 83
<211> 431
<212> PRT
<213> Homo Sapien

<400> 83
Met Phe Phe Gly Gly Glu Gly Ser Leu Thr Tyr Thr Leu Val Ile
1 5 10 15

Ile	Cys	Phe	Leu	Thr	Leu	Arg	Leu	Ser	Ala	Ser	Gln	Asn	Cys	Leu
20							25						30	
Lys	Lys	Ser	Leu	Glu	Asp	Val	Val	Ile	Asp	Ile	Gln	Ser	Ser	Leu
35							40						45	
Ser	Lys	Gly	Ile	Arg	Gly	Asn	Glu	Pro	Val	Tyr	Thr	Ser	Thr	Gln
50							55						60	
Glu	Asp	Cys	Ile	Asn	Ser	Cys	Cys	Ser	Thr	Lys	Asn	Ile	Ser	Gly
65							70						75	
Asp	Lys	Ala	Cys	Asn	Leu	Met	Ile	Phe	Asp	Thr	Arg	Lys	Thr	Ala
80							85						90	
Arg	Gln	Pro	Asn	Cys	Tyr	Leu	Phe	Phe	Cys	Pro	Asn	Glu	Glu	Ala
95							100						105	
Cys	Pro	Leu	Lys	Pro	Ala	Lys	Gly	Leu	Met	Ser	Tyr	Arg	Ile	Ile
110							115						120	
Thr	Asp	Phe	Pro	Ser	Leu	Thr	Arg	Asn	Leu	Pro	Ser	Gln	Glu	Leu
125							130						135	
Pro	Gln	Glu	Asp	Ser	Leu	Leu	His	Gly	Gln	Phe	Ser	Gln	Ala	Val
140							145						150	
Thr	Pro	Leu	Ala	His	His	His	Thr	Asp	Tyr	Ser	Lys	Pro	Thr	Asp
155							160						165	
Ile	Ser	Trp	Arg	Asp	Thr	Leu	Ser	Gln	Lys	Phe	Gly	Ser	Ser	Asp
170							175						180	
His	Leu	Glu	Lys	Leu	Phe	Lys	Met	Asp	Glu	Ala	Ser	Ala	Gln	Leu
185							190						195	
Leu	Ala	Tyr	Lys	Glu	Lys	Gly	His	Ser	Gln	Ser	Ser	Gln	Phe	Ser
200							205						210	
Ser	Asp	Gln	Glu	Ile	Ala	His	Leu	Leu	Pro	Glu	Asn	Val	Ser	Ala
215							220						225	
Leu	Pro	Ala	Thr	Val	Ala	Val	Ala	Ser	Pro	His	Thr	Thr	Ser	Ala
230							235						240	
Thr	Pro	Lys	Pro	Ala	Thr	Leu	Leu	Pro	Thr	Asn	Ala	Ser	Val	Thr
245							250						255	
Pro	Ser	Gly	Thr	Ser	Gln	Pro	Gln	Leu	Ala	Thr	Thr	Ala	Pro	Pro
260							265						270	
Val	Thr	Thr	Val	Thr	Ser	Gln	Pro	Pro	Thr	Thr	Leu	Ile	Ser	Thr
275							280						285	
Val	Phe	Thr	Arg	Ala	Ala	Ala	Thr	Leu	Gln	Ala	Met	Ala	Thr	Thr
290							295						300	
Ala	Val	Leu	Thr	Thr	Thr	Phe	Gln	Ala	Pro	Thr	Asp	Ser	Lys	Gly

5
305 310 315

Ser Leu Glu Thr Ile Pro Phe Thr Glu Ile Ser Asn Leu Thr Leu
320 325 330

Asn Thr Gly Asn Val Tyr Asn Pro Thr Ala Leu Ser Met Ser Asn
335 340 345

Val Glu Ser Ser Thr Met Asn Lys Thr Ala Ser Trp Glu Gly Arg
350 355 360

Glu Ala Ser Pro Gly Ser Ser Ser Gln Gly Ser Val Pro Glu Asn
365 370 375

Gln Tyr Gly Leu Pro Phe Glu Lys Trp Leu Leu Ile Gly Ser Leu
380 385 390

Leu Phe Gly Val Leu Phe Leu Val Ile Gly Leu Val Leu Leu Gly
395 400 405

Arg Ile Leu Ser Glu Ser Leu Arg Arg Lys Arg Tyr Ser Arg Leu
410 415 420

Asp Tyr Leu Ile Asn Gly Ile Tyr Val Asp Ile
425 430

<210> 84
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 84
agggaggatt atccttgacc tttgaagacc 30

<210> 85
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 85
gaagcaagtg cccagctc 18

<210> 86
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 86
cgggccctg ctcttgg 18

<210> 87
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 87
caccgtagct gggagcgac tcac 24

<210> 88
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 88
agtgttaagtc aagctccc 18

<210> 89
<211> 49
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 89
gcttcctgac actaaggctg tctgttagtc agaattgcct caaaaagag 49

<210> 90
<211> 957
<212> DNA
<213> Homo Sapien

<400> 90
cctggaagat gcgcoccattg gctggtgcc tgctcaaggt ggtgttcgtg 50
gtcttcgcct ccttgtgtgc ctggattcg gggtacctgc tcgcagagct 100
cattccagat gcacccctgt ccagtgcgtc ctatagcatc cgccagcatcg 150
gggagaggcc tgtcctcaaa gctccagtcc ccaaaaggca aaaatgtac 200
cactggactc cctgccatc tgacacctat gcctacaggt tactcagcgg 250
agggtggcaga agcaagtacg ccaaaatctg ctttgaggat aacctactta 300
tgggagaaca gctggaaat gttgccagag gaataaacat tgccattgtc 350
aactatgtaa ctggaaatgt gacagcaaca cgatgtttg atatgtatga 400
aggcgataac tctggaccga tgacaaagtt tattcagagt gctgctccaa 450
aatccctgct cttcatggtg acctatgacg acggaagcac aagactgaat 500

aacgatgccca agaatgccat agaagcactt ggaagtaaaag aaatcaggaa 550
catgaaattc aggtctagct gggtatttat tgccagaaaaa ggcttggAAC 600
tcccttcga aattcagaga gaaaagatca accactctga tgctaagaac 650
aacagatatt ctggctggcc tgcagagatc cagatagaag gctgcataacc 700
caaagaacga agctgacact gcagggtcct gagtaaatgt gttctgtata 750
aacaaatgca gctggaatcg ctcaagaatc ttatTTTCTT aaatccaaca 800
gcccatattt gatgagtatt ttgggtttgt tgtaaacccaa tgaacatttg 850
ctagttgtat caaatcttgg tacgcagtat ttttataccca gtatTTATG 900
tagtgaagat gtcaatttagc aggaaaactaa aatgaatggA aattcttaaa 950
aaaaaaaa 957

<210> 91
 <211> 235
 <212> PRT
 <213> Homo Sapien

 <400> 91
 Met Arg Pro Leu Ala Gly Gly Leu Leu Lys Val Val Phe Val Val
 1 5 10 15

 Phe Ala Ser Leu Cys Ala Trp Tyr Ser Gly Tyr Leu Leu Ala Glu
 20 25 30

 Leu Ile Pro Asp Ala Pro Leu Ser Ser Ala Ala Tyr Ser Ile Arg
 35 40 45

 Ser Ile Gly Glu Arg Pro Val Leu Lys Ala Pro Val Pro Lys Arg
 50 55 60

 Gln Lys Cys Asp His Trp Thr Pro Cys Pro Ser Asp Thr Tyr Ala
 65 70 75

 Tyr Arg Leu Leu Ser Gly Gly Arg Ser Lys Tyr Ala Lys Ile
 80 85 90

 Cys Phe Glu Asp Asn Leu Leu Met Gly Glu Gln Leu Gly Asn Val
 95 100 105

 Ala Arg Gly Ile Asn Ile Ala Ile Val Asn Tyr Val Thr Gly Asn
 110 115 120

 Val Thr Ala Thr Arg Cys Phe Asp Met Tyr Glu Gly Asp Asn Ser
 125 130 135

 Gly Pro Met Thr Lys Phe Ile Gln Ser Ala Ala Pro Lys Ser Leu
 140 145 150

 Leu Phe Met Val Thr Tyr Asp Asp Gly Ser Thr Arg Leu Asn Asn
 155 160 165

Asp Ala Lys Asn Ala Ile Glu Ala Leu Gly Ser Lys Glu Ile Arg
170 175 180

Asn Met Lys Phe Arg Ser Ser Trp Val Phe Ile Ala Ala Lys Gly
185 190 195

Leu Glu Leu Pro Ser Glu Ile Gln Arg Glu Lys Ile Asn His Ser
200 205 210

Asp Ala Lys Asn Asn Arg Tyr Ser Gly Trp Pro Ala Glu Ile Gln
215 220 225

Ile Glu Gly Cys Ile Pro Lys Glu Arg Ser
230 235

<210> 92

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 92

aatgtgacca ctggactccc 20

<210> 93

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 93

aggcttgaa ctcccttc 18

<210> 94

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 94

aagattcttg agcgattcca gctg 24

<210> 95

<211> 47

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 95

aatccctgct cttcatggtg acctatgacg acggaagcac aagactg 47

<210> 96
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 96
ctcaagaagc acgcgtactg c 21

<210> 97
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 97
ccaacacctag cttccgcctc tacga 25

<210> 98
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 98
catccaggct cgccactg 18

<210> 99
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 99
tggcaaggaa tggaaacagt 20

<210> 100
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 100
atgctgccag acctgatcgc agaca 25

<210> 101
<211> 19
<212> DNA

<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide probe

<400> 101
gggcagaaat ccagccact 19

<210> 102
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 102
cccttcgcct gctttga 18

<210> 103
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 103
gccatctaattt tgaagcccat cttccca 27

<210> 104
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